

1   CLAIMS:

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3           1.    A mechanism for sensing the status of a media  
4   stack tray which dispenses media to a printing device, the  
5   media stack tray being associated with a dispensing device  
6   which dispenses media from the media stack tray, the  
7   mechanism comprising:

8                a probe having at least two positions such that  
9   the probe is located in a first position when the media  
10   stack tray has an empty status and is located in a second  
11   position when the media stack tray has a loaded status,  
12   the probe being mounted relative to the media stack tray  
13   so that when the media stack tray has a loaded status the  
14   media is normally located between the probe and the  
15   dispensing device; and

16               a detector associated with the probe, the  
17   detector for detecting the position of the probe.

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19           2.    The mechanism of claim 1, wherein the probe  
20   comprises:

21                a shaft which is pivotally mounted to the media  
22   stack tray, the shaft being biased so as to locate the  
23   probe in the first position when the media stack tray has  
24   an empty status; and

25                a media contacting part extending from the  
26   shaft,  
27   said media contacting part bearing against the media stack  
28   when the media stack tray has a loaded status so as to  
29   locate the probe in the second position.

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31           3.    The mechanism of claim 2 wherein the shaft is  
32   gravitationally biased.

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2           4.    The mechanism of claim 3 wherein the probe and  
3 the detector are each located on the opposite side of the  
4 media stack relative to the dispensing device.

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6           5.    The mechanism of claim 3 wherein the detector  
7 and the dispensing device are arranged on the same side of  
8 the media stack.

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10          6.    The mechanism of claim 2 wherein the probe is  
11 mounted on a stack support platform of the media stack  
12 tray, the stack support platform being biased so as to be  
13 movable relative to the dispensing device so as to  
14 maintain a substantially constant positional relationship  
15 between the top of the media stack and the dispensing  
16 device.

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18          7.    A media stack tray for a printer, the media  
19 stack tray for dispensing media from a media stack, the  
20 media stack tray being associated with a dispensing device  
21 which dispenses media from the media stack tray, the media  
22 stack tray comprising:

23               a mechanism for sensing the status of the media  
24 stack tray, the mechanism including:

25               a media contacting probe having plural positions  
26 such that the media contacting probe is located in a first  
27 position when the media stack tray has an empty status and  
28 is located in a second position when the media stack tray  
29 has a loaded status; and

30               a detector associated with the media contacting  
31 probe, the detector for detecting the position of the  
32 media contacting probe; and

1           a platform for supporting the media stack  
2 wherein the media contacting probe is mounted to the  
3 platform so that when the media stack tray has a loaded  
4 status the media is normally located between the probe and  
5 the dispensing device.  
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